

ABSTRACT

Water is fed from a tank to a capillary carrier having an emitter end from which an ionized water particle is emitted by a voltage being applied across the emitter end and an opposed electrode. A cation exchanger is provided to remove minerals such as Ca^{2+} and Mg^{2+} from the water being fed through the capillary carrier or from the water to be fed to the carrier from the tank, thereby avoiding the ions from precipitating at the emitter end as CaCO_3 or MgO in reaction with CO_2 in the surrounding air, and therefore assure reliable electrostatic atomization over a long period of time.